

WHAT IS CLAIMED IS:

- 1 1. A timepiece comprising:
2 a liquid crystal display (LCD);
3 a battery powered circuit for driving the LCD and determining a time;
4 and
5 one or more alternating current (AC) powered lights configured as a
6 back light to the LCD,
7 wherein the one or more AC powered lights function when plugged
8 into an AC power source.
- 1 2. The timepiece of claim 1 wherein the timepiece does not
2 include a transformer or a rectifier circuit.
- 1 3. The timepiece of claim 1 wherein the timepiece is a clock.
- 1 4. The timepiece of claim 2 wherein the clock is a digital clock.
- 1 5. The timepiece of claim 1 wherein the one or more AC powered
2 lights comprise one or more neon lights.
- 1 6. The timepiece of claim 1 wherein the one or more AC powered
2 lights function only when plugged into the AC power source.
- 1 7. The timepiece of claim 1 wherein the battery power is supplied
2 by one or more AA batteries.
- 1 8. The timepiece of claim 1 further comprising an alarm that
2 progressively increases in volume as the alarm sounds.
- 1 9. The timepiece of claim 8 further comprising a snooze button
2 that delays the alarm for a period of time.

1 10. The timepiece of claim 1 wherein the timepiece continues to
2 determine the time while the battery is at least partially charged and remains in
3 contact with the battery powered circuit.

1 11. A digital alarm clock comprising:
2 a liquid crystal display (LCD);
3 a battery;
4 a battery powered digital clock circuit for driving the LCD and
5 determining a time; and
6 one or more alternating current (AC) powered neon lights configured
7 as a back light to the LCD,
8 wherein the one or more AC powered neon lights function only when
9 plugged into an AC power source and the digital clock circuit functions only when
10 connected to the battery.

1 12. The digital alarm clock of claim 11 wherein the digital alarm
2 clock does not include a transformer or a rectifier circuit.

1 13. A timepiece comprising:
2 a housing;
3 a liquid crystal display (LCD);
4 an alternating current (AC) powered back light to the LCD;
5 a reflector located between the LCD and the back light;
6 a battery; and
7 a battery powered printed circuit board configured to drive the LCD
8 and determine a time.

1 14. The timepiece of claim 13 wherein the timepiece is a digital
2 alarm clock.

1 15. The timepiece of claim 13 wherein the reflector comprises
2 flame retardant polycarbonate (PC) and the housing comprises flame retardant
3 acrylonitrile-butadiene-styrene (ABS).

1 16. The timepiece of claim 13 wherein the timepiece does not
2 include a transformer or a rectifier circuit.

1 17. The timepiece of claim 13 wherein the AC powered back light
2 comprises one or more neon lights powered by a conventional 120V 60Hz or 220V
3 50Hz power source.

1 18. The timepiece of claim 17 wherein each neon light is connected
2 in parallel with all of the one or more neon lights and each neon light is coupled in
3 series with a resistance between 68 and 82 kilo-Ohms.

1 19. The timepiece of claim 13 further comprising a plurality of
2 switches connected to the battery powered printed circuit board and functioning to
3 set the date, time, and alarm configuration of the timepiece.

1 20. The timepiece of claim 19 further comprising an alarm
2 transducer and one or more capacitors connected to the battery powered circuit
3 board.